



K A N S A S

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Glanders Q&A

What is glanders?

Glanders is a disease that primarily infects horses, mules and donkeys. Humans have on rare occasions become infected through handling diseased animals. This typically happens in veterinarians, slaughterhouse workers or others who work with animals in Asia, the Middle East and South America. There has not been a naturally occurring case of human case of glanders in the U.S. since 1940, when some laboratory workers were accidentally infected.

How is glanders spread?

While glanders is contagious from animals to the humans, it is not spread from person to person. Only persons who work closely with animals or animal tissues ordinarily need be concerned about being at risk for glanders.

What are the symptoms of glanders?

In humans, the symptoms of glanders begin to show between 1-14 days from the time a person is exposed. Symptoms include high fever (over 102° F), mucous discharge and abscesses on internal organs – most often on the lungs, liver and spleen. The acute disease may become localized in the heart or mucous membranes, and then spread in the blood (called septicemia) throughout the body, capable of an acute multiple organ system infection. Glanders can also take the form of a chronic condition rather than an acute infection.

Septicemia (from glanders) is characterized by high fever, rigors, headache, muscle pain, night sweats, chest pain, yellowing of the eyes and skin (jaundice), sensitivity to light, diarrhea and skin lesions. Septicemia may result in a decreased white blood cell count, swollen lymph nodes (or glands), rapid heartbeat, and slight enlargement of the liver or spleen.

The chronic condition may show no symptoms, or may manifest symptoms that recur and subside over many years. The most common of these are abscesses within the skin and muscle tissue of the limbs. Some chronic cases have developed infection of the bones (osteomyelitis), brain abscesses or meningitis.

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Is glanders fatal?

Glanders is almost always fatal in humans if not treated. Antibiotic therapy can increase the chance of surviving the illness, depending upon the severity of the case.

How can glanders be prevented?

People should avoid contact with animals known to be infected with glanders. Veterinarians and laboratory workers should observe appropriate infection control guidelines. While the disease is rare in horses, donkeys, and mules in the U.S., travelers should be mindful of the increased risk when visiting overseas. There is no human vaccine against the disease, but research is ongoing.